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Corrosion Collection

State of California
Department of Public Works
Division of Highways
Materials and Research Department

September 28, 1962

Paso Robles School for Boys
I. A. R. S. A. 2645
W. O. AF05-008-C
Lab. Auth. 72-Q-6285

Mr. E. W. Hampton
Acting State Architect
Division of Architecture
Sacramento, California

Attention: Mr. Aldo Crestetto, Supervising Engineer

Subject: Testing Adequacy of Cathodic Protection System

Gentlemen:

As requested, representatives of the Materials and Research Department performed electrical continuity and operational checks on the cathodic protection system at the Paso Robles School for Boys near Paso Robles during the week of August 20, 1962. The results of the checks are included in this report.

Very truly yours,

F. N. Hveem
Materials and Research Engineer

By J. L. Beaton
Supervising Highway Engineer

WSM:mw
cc: OEAnderson
ISchultz
Brown (Paso Robles)

The continuity and operational checks on the underground water piping at this site indicated that (1) the newly installed cathodic protection system in the farm area was not electrically connected to the remainder of the pipe system, and (2) locations of high resistance joints in the underground piping system will require additional jumpers to make the system operational.

The anode lead wire in one of the original anode beds was found to have been broken which resulted in five out of seventeen anodes to be operational. The school planned to reconnect the broken wire the day following our testing.

Under the present conditions our testing indicated that approximately 70% of the considered underground piping is protected from corrosion as noted on Exhibit I.

It is recommended that additional jumper wires be installed at nine locations as noted on Exhibit I.

It is recommended that the monitoring of the cathodic protection system by the school maintenance personnel be from properly identified and electrically stable locations which are noted on Exhibit I.

Upon completion of the installation of the recommended jumper wires the entire pipe system be again evaluated by field tests as indicated on Exhibit II.

In our original report on May 24, 1957, and the subsequent report on November 1960, it was recommended that the school perform monthly operational checks of the cathodic protection system. Thus far the school has not complied with these recommendations which has resulted in leaks in the piping as well as abnormal damage to the anodes as a result of the severance of the anode cable.

It is our opinion that the leaks in the pipe which have occurred at this facility in no way reflects upon the efficiency of the cathodic protection system.